

Design and Technology

Natural Resources and Agriculture (Revised 9/20/05)

7.16 Students demonstrate an understanding of natural resources and agricultural systems and why and how they are managed.
This is evident when students:

Prek-4	5-8	9-12
<p>7.16.a. Identify natural and agricultural resources and where they come from (e.g., wildlife, fish, plant, rock, water, soil, minerals, sunlight, and air), and distinguish between natural resources and things made by humans (e.g., sand vs. cement, milk vs. ice cream, wheat vs. bread, sap vs. syrup, wildlife vs. domesticated animals).</p> <p>7.16.b. Identify the benefits of agriculture and natural resources (e.g., public health, public welfare, recreation, safe food).</p> <p>7.16.c. Identify actions individuals and families can take to help manage natural resources and agriculture (e.g., walking on established trails, fishing and hunting in season, picking up litter, recycling, purchasing locally grown agricultural products).</p>	<p>7.16.aa. Identify and investigate the natural resource and agricultural areas in Vermont and the products and markets for each (e.g., interaction of major natural communities, fish and wildlife, water and earth resources; locate farming regions and products).</p> <p>7.16.bb. Describe the effects of the inter- relationships among multiple natural resources and agricultural practices (e.g., forestry management, wildlife population management, nutrient and pesticide use).</p> <p>7.16.cc. Describe how management and development practices affect resource conservation and agricultural systems (e.g., People decide when and how to harvest trees, fish, and wildlife; where to plant and how to grow crops; where to preserve wild areas; where to locate businesses and homes; and how farm practices can reduce their impacts on streams).</p>	<p>7.16.aaa. Identify, investigate, and analyze the major natural communities and resources that exist within Vermont and the New England region, and evaluate the attributes, distribution, and current issues related to each (e.g., regional processes that influence our natural resources, such as the introduction of zebra mussels into Vermont waters; watershed issues; acid rain).</p> <p>7.16.bbb. Evaluate how science and technology are used to maximize benefits and understand natural resource and agricultural systems (e.g., genetic diversity of species promotes disease resistance in natural populations, bioengineering of seeds provides improved crop production)</p> <p>7.16.ccc. Evaluate how science, technology and social/economic principles are used by individuals, private groups and governments to make informed decisions about natural resources and agricultural management (e.g., purchasing a fuel efficient car, managing farm and urban nutrients/ crops; establishing town zoning, pollution emission standards, hunting and fishing regulations or adding /removing a species – like the peregrine falcon – from Vermont’s endangered and threatened species list).</p>